In the Claims

Please amend Claims 1-7 and 12 as follows:

1. (Currently amended) A mobile communications device comprising:

a communications unit configured to receive communications data from a source, wherein the communications data includes a precision signal; and

a global positioning system (GPS) unit coupled to the communications unit, wherein the GPS unit includes a phase-locked loop <u>having a phase interpolated fractional frequency synthesizer, the phase-locked loop</u> providing a reference signal phased-locked to the precision signal, the reference signal being provided to downconvert a GPS satellite signal.

2. (Previously presented) The device of claim 1, further comprising an automatic frequency control (AFC) element coupled to a communications antenna to receive a carrier signal, wherein the AFC is configured to generate the precision signal as a signal locked in frequency to the carrier signal.

3. (Previously presented) The device of claim 2, further comprising, in the phase-locked loop, a phase comparator that receives the precision signal and the reference signal and outputs an error control signal.

4. (Previously presented) The device of claim 3, further comprising a voltage controlled oscillator configured to receive the error control signal-and to output the reference signal.

5. (Previously presented) The device of claim 4 further comprising a downconverter that receives the reference signal and ~~a~~ the GPS satellite signal and outputs an intermediate frequency signal.

6. (Currently amended) A mobile global positioning system (GPS) device, comprising:

a first antenna for receiving GPS signals;

a downconverter coupled to the first antenna, wherein the first antenna provides the GPS signals to the downconverter, wherein the downconverter includes an input for receiving a reference clock signal to convert the GPS signals from a first frequency to a second frequency;

a second antenna for receiving a precision carrier frequency signal from a source;

an automatic frequency control (AFC) circuit coupled to the second antenna to receive the precision carrier frequency signal and configured to generate a precision reference signal related in frequency with the precision carrier frequency signal; and

a phase-locked loop having a phase interpolated frequency synthesizer, the phase-locked loop providing the reference clock signal phase-locked to the precision reference signal.

7. (Previously presented) The device of claim 6, further comprising, in the phase-locked loop, a phase comparator that receives the reference clock signal and the precision reference signal.

8. (Original) The device of claim 7, further comprising a receiver coupled to the second antenna, wherein the receiver receives the precision carrier frequency signal, and further receives a data signal containing satellite data.

9. (Original) The device of claim 8, wherein the satellite data includes Doppler data related to a satellite in view of the receiver.

10. (Original) The device of claim 9, wherein the satellite data further includes an identification of a plurality of satellites in view of the receiver and a corresponding plurality of Doppler information related to the plurality of satellites.

11. (Original) The device of claim 10, wherein the satellite data further includes ephemeris data related to a satellite in view of the receiver.

12. (Previously presented) A mobile communications device, comprising:

a GPS antenna for receiving GPS signals;

a downconverter coupled to the GPS antenna, wherein the GPS antenna provides the GPS signals to the downconverter;

a communications unit, including, a communication antenna for receiving a precision carrier frequency signal from a source; and an automatic frequency control (AFC) circuit coupled to the communication antenna, wherein the AFC circuit provides a reference signal based on the precision carrier frequency signal; and

an oscillator coupled to the downconverter, wherein the oscillator provides an oscillator signal phase-locked to the reference signal <u>for mixing with the GPS signals in</u>

the downconverter, the oscillator signal being provided by a phase-locked loop having a phase interpolated fractional frequency synthesizer ~~to the downconverter to mix with the GPS signals~~.

13. (Original) A personal communications device comprising:

a telecommunications unit comprising a device selected from a group comprising, a code division multiple access (CDMA) device, a WCDMA device, a FDMA device, a OFDMA device, a UMTS-compatible device, a UWB-compatible device, a TDMA device, a WiFi device, a PDC device, an iDEN™ device, and a GSM device, wherein the telecommunications unit further comprises a clock source; and

a global positioning system (GPS) receiver, wherein the GPS receiver comprises a voltage controlled oscillator for generating a GPS system clock signal based upon the clock source, and a feedback loop for controlling the voltage controlled oscillator, wherein the feedback loop comprises, a phase comparator for generating a control signal in accordance with the feedback signal and the clock source; and a loop filter for processing the control signal and outputting the control signal to the voltage controlled oscillator.

14. (Original) The personal communications device of claim 13 wherein the clock source provides a common clock signal to the global positioning receiver and the telecommunications unit.

15. (Original) The personal communications device of claim 13 wherein the clock source comprises a crystal oscillator.

16. (Original) The personal communications device of claim 13 wherein the frequency synthesizer comprises:

acontrolled oscillator having a variable output controlled by an input signal;

a frequency divider coupled to receive the output of the controlled oscillator and responsive to the output to provide a frequency divided output signal;

a phase compensation circuit coupled to receive the frequency divided output signal from the frequency divider, the phase compensation circuit responsive to the frequency divided output signal to provide an output which compensates for phase lag of the frequency divided output of the frequency divider; and

a phase detector coupled to receive an output of the phase compensation circuit and the GPS system clock signal and to output a signal proportional to a difference in phase between the output of the phase compensation circuit and the GPS system clock signal to control the controlled oscillator.

17. (Original) The personal communications device of claim 13 wherein the divider is a fractional-N divider.

18. (Original) The personal communications device of claim 13 wherein the controlled oscillator is a voltage controlled oscillator.

19. (Original) The personal communications device of claim 13 further comprising a switch for selectable engaging the feedback loop to control the voltage controlled oscillator.

20. (Original) The personal communications device of claim 13 wherein the switch is

permanently set during manufacture.

21. (Original) A method of clocking GPS receiver operations comprising the steps of:

receiving a clock signal from a clock source selected from a group comprising, a code division multiple access (CDMA) device clock, a WCDMA device clock, a FDMA device clock, a OFDMA device clock, a UMTS-compatible device clock, a UWB-compatible device clock, a TDMA device clock, a WiFi device clock, a PDC device clock, an iDEN™ device clock, and a GSM device clock;

generating a control voltage for controlling a frequency of an oscillator signal generated by a voltage controlled oscillator based upon a feedback signal by a frequency synthesizer; and

generating a system clock signal of a particular frequency in response to the control voltage, wherein the frequency synthesizer generating the feedback signal includes,

receiving the system clock signal;

frequency dividing the system clock signal by at least two integer values to generate a fractional-N divider signal over a discrete time period;

generating a variably delayed signal based upon the fractional-N divided signal within the discrete time period; and comparing a phase of the variably delayed signal and a reference signal and varying the system clock signal according to a detected phase difference.

22. (Original) A method of clocking GPS receiver operations according to claim 21, wherein the clock source comprises a crystal oscillator.

23. (Original) A method of clocking GPS receiver operations according to claim 13, wherein the telecommunications unit comprises a CDMA based telecommunications unit.

24. (Original) A personal communications device comprising:

means for receiving a telecommunications signal selected from a group comprising, a code division multiple access (CDMA) device means, a WCDMA device means, a FDMA device means, a OFDMA device means, a UMTS-compatible device means, a UWB-compatible device means, a TDMA device means, a WiFi device means, a PDC device means, an iDEN™ device means, and a GSM device means;

means for receiving a global positioning system (GPS) signal comprising an oscillator for generating a GPS system clock signal and a feedback loop for generating and providing a control signal to the oscillator; and

means for generating a clock source signal to be provided to the means for receiving a global positioning system (GPS) signal and the means for receiving a telecommunications signal, wherein the feedback loop comprises,

a frequency synthesizer for generating a feedback signal; and

a phase comparator for generating a control signal in accordance with the feedback signal and the clock source signal.

25. (Original) A personal communications device according to claim 24 wherein the

means for receiving a telecommunications signal comprises a code division multiple access (CDMA) based radio frequency receiver.

26. (Original) A personal communications device according to claim 24 wherein the means for receiving a telecommunications signal includes the means for generating a clock source signal, and wherein the means for generating a clock source signal comprises a crystal oscillator.